

REMARKS

This paper amends claims 1 and 16 and adds claims 21 and 22.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4). The Examiner states that reference characters 11 and 41 are used to designate more than one structure. Applicants have amended the specification to clarify that reference characters 11 and 41 each refer to only a single structure. Accordingly, Applicants request that the Examiner withdraw the objection under 37 CFR 1.84(p)(4).

Page 1 of the application, the abstract, and claim 16 are amended to correct informalities objected to by the Examiner.

Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art Figs. 1, 2, and 5. Applicants respectfully traverse the rejection. Claim 1 recites a p- and an n-electrode . . . attached to a same side of the light emitting device; and a superstrate, having a refractive index greater than a refractive index of sapphire, attached to the heterostructure." None of Figs. 1, 2, or 5 teach a superstrate with a refractive index greater than sapphire in combination with p- and n-electrodes attached to the same side of the device. Figs. 1 and 5 each show a device with the p- and n-electrodes attached to the same side of the device, however both of these devices have a sapphire substrate. Fig. 2 shows a device with a SiC substrate, which has a refractive index greater than that of sapphire; however, in the device of Fig. 2 the p- and n-electrodes are formed on opposite sides of the device. It would not be obvious to modify the device of Fig. 2 to form the n- and p-electrodes on the same side because to do so would require etching away a portion of the active region to form a mesa, as shown in Fig. 1. Removing part of the active region would be expected to result in less light generated by the active region and therefore less light emitted from the device. Since Figs. 1, 2, and 5 do not teach all the elements of claim 1 and it would not be obvious to modify Figs. 1, 2, and 5 to create the device of claim 1, claim 1 is allowable over

Figs. 1, 2, and 5. Claims 3 and 5 depend from claim 1 and are therefore allowable for at least the same reason.

Claims 9, 12-16, and 19 are rejected under 35 U.S.C. 103(a) are rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Inoue et al., U.S. Patent 6,333,522 (hereinafter "Inoue"). Applicants respectfully traverse the rejection. Claims 9, 12-16, and 19 depend from claim 1 and are therefore allowable for at least the reasons as claim 1.

In addition, with respect to claim 9, claim 9 recites "a portion of the p-electrode interposes portions of the n-electrode." Applicants can find no such teaching in Inoue. In Fig. 8A, the figure cited by the Examiner, the n-electrode interposes portions of the p-electrode, but the p-electrode does not interpose portions of the n-electrode. Claim 9 is therefore allowable over the combination of Figs. 1, 2, and 5 and Inoue for this additional reason.

With respect to claims 14 and 15, claim 14 recites "a p-conductive interface disposed between the p-interconnect and the p-electrode; and an n-conductive interface disposed between the n-interconnect and the n-electrode." Layer 73 of Fig. 8B is cited by the Examiner as being claim 14's p-conductive interface. Fig. 8B clearly shows that layer 73 is beneath p-electrode 5, NOT between the p-interconnect and the p-electrode as required in claim 14. In addition, the portions of Inoue cited by the Examiner do not teach an n-conductive interface at all. Claims 14 and 15 are therefore allowable over the combination of Figs. 1, 2, and 5 and Inoue for this additional reason.

With respect to claim 16, Applicants can find no teaching in Inoue that "the lateral cross sectional area of the n-conductive interface and the p-conductive interface is at least 15% of an area of the p-electrode" as recited in claim 16. Claim 16 is therefore allowable over the combination of Figs. 1, 2, and 5 and Inoue for this additional reason.

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Krames et al., U.S. Publication No. US 2001/0000410 A1. Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Krames et al., U.S. Patent 5,779,924. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Furukawa et al., U.S. Patent 5,124,779. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Inoue and Shigihara et al., U.S. Patent 5,247,203. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figs. 1, 2, and 5 in view of Iranmanesh, U.S. Patent 5,521,440. Claims 2, 4, 6-8, 11, 17, 18 and 20 depend from claim 1 and are therefore allowable for at least the same reasons as claim 1.

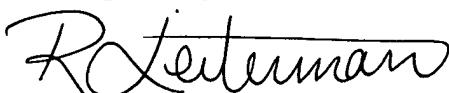
Applicants thank the Examiner for allowing claim 10.

In view of the above arguments, Applicants respectfully request allowance of claims 1-22. Should the Examiner have any questions, the Examiner is invited to call the undersigned at (408) 382-0480.

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